REMARKS/ARGUMENTS

The Applicant has carefully considered this application in connection with the Examiner's Final Action mailed November 5, 2004, and respectfully requests reconsideration of this application in view of the foregoing amendments and the following remarks. The Applicant submitted arguments on February 8, 2005 in response to the Examiner's Action mailed November 5, 2004. Those arguments were not entered per the Advisory Action mailed February 17, 2005. The Applicant respectfully requests that those arguments be disregarded in lieu of the amendments and arguments below.

The Applicant originally submitted Claims 1-20 in the application. The Applicant previously amended Claims 1, 8 and 15, and amends these claims again in the present response. Accordingly, Claims 1-20 are currently pending in the application.

I. Rejection of Claims 1-20 under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,651,125 to Witt, *et al.*, in view of U.S. Patent 3,863,225 to Preiss. The Applicant respectfully traverses the Examiner's rejection, because the cited combination does not teach or suggest each and every element of the presently claimed invention. With respect to claims 1, 8 and 15, the combination of Witt and Preiss fails to teach or suggest the element of storing instructions and instruction type information in a queue in an order based on a priority of the instructions.

Witt is directed in general to microprocessors and, more particularly, to high performance superscalar microprocessors. Col. 2, lines 51-53. Witt teaches that a group of four instructions is retrieved from ICACHE 205 in program order. Col. 16, line 26-30. IDECODE 210 provides instruction type information for each instruction, corresponding to the functional unit for which the

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instruction is intended. Col. 19, lines 27-34. IDECODE 210 then broadcasts the opcode of a decoded instruction to the appropriate functional unit for that instruction type, which recognizes the opcode by its instruction type information. Col. 13, lines 49-51; col. 19, lines 41-45. The opcode is then latched into a reservation station corresponding to that functional unit on a first-in first-out basis, and no ordering of instructions based on a priority of the instructions occurs. Col. 23, lines 42-45. Witt is silent with respect to the treatment of the instruction type information after the opcode is latched into the reservation station.

Therefore, Witt does not teach storing the instructions in an order based on a priority of the instructions, but teaches storing the instructions in the reservation station strictly in order of dispatch. Additionally, Witt is silent with respect to storing the instruction type information. Furthermore, there is no suggestion to store the instructions and instruction type information in a queue in an order based on a priority of the instructions. In the disclosed architecture of Witt, out of order processing necessitated by nonavailability of operands is accommodated by the reservation station-based architecture, and instructions are stored in the reservation station on a first-in first-out basis. Col. 23, lines 42-45. Moreover, with respect to the instruction type information, once an opcode is latched into the appropriate reservation station, the instruction type information has no utility. Thus, Witt does not teach or suggest storing the instruction type information or teach or suggest storing the instructions in an order based on a priority of the instructions as recited in Claims 1, 8 and 15.

Preiss has not been cited to cure the deficiency of Witt. Preiss is directed to providing a functional unit with a predefined priority to arbitrate effectively among functional units signaling for attention. Abstract; col. 3, lines 8-15. Therefore, the cited combination of Witt and Preiss fails to teach or suggest each and every element of the presently claimed invention. Thus, the cited combination of Witt and Preiss fails to establish a *prima facie* case of obviousness for independent

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Claims 1, 8, and 15, and the claims depending therefrom. Accordingly, the Applicant respectfully

requests that the Examiner withdraw the rejection under 35 U.S.C §103(a) and allow issuance of
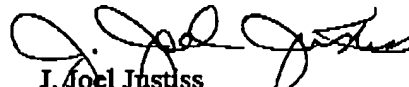
Claims 1-20.

III.   Conclusion

In view of the foregoing amendments and remarks, the Applicant now sees all of the

claims currently pending in this application to be in condition for allowance and therefore earnestly

solicits a Notice of Allowance for Claims 1-20.

The Applicant requests the Examiner to telephone the undersigned attorney of record at

(972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

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